

DOCUMENT 000000

ED 055 677

LI 003 102

STUDY Systems, S.
TITLE Survey of the World Agricultural Documentation Services, Draft; Prepared on Behalf of the FAO Panel of Experts on "ADPIS" (International Information System for the Agricultural Sciences and Technology).
INSTITUTION Centre for Information and Documentation of the European Communities (CID), Luxembourg.
SPONS AGENCY United Nations Food and Agriculture Organization, Rome (Italy).
REPORT NO FAO-DC-ADPIS-1
PUB DATE Dec 70
NOTE 66p.; (10 References)
AVAILABLE FROM Centre for Information and Documentation, European Communities, 79, rue Ailliergus, Luxembourg, G.D., Belgium (EUR 0600 o \$1.65)
DESCRIPTORS AF-80.05 OC-81.79
IDENTIFIERS *Agriculture; Automation; *Documentation; Electronic Data Processing; *Evaluation; *Information Services; *International Programs; Surveys
IDENTIFIERS United Nations

ABSTRACT

The purpose of the survey was: (1) to evaluate existing agricultural information services and (2) to propose possible frameworks for an improved world-wide agricultural information service. The principal statistical results of the survey are summarized in the following figures which are based on data collected in nearly all instances for the year 1969. A total of 510 secondary agricultural documentation services with a total output of 1.2 million references were analyzed. Of these: 150 issue titles only; 170 issue titles plus abstracts; 217 have subject indexes; 200 have author indexes; 050 produce serially published output; 31 services are mechanized, with machine-readable tape available from 10 services; and 66 services offer a retrieval service. The 10 largest title services issue a total of 160,000 titles per year. The 10 largest abstract services issue a total of 227,000 abstracts. There are 100 card services issuing a total of 300,000 references per year. The services analyzed are published in 50 countries in 22 languages. Appendices 5-17 (a data list displaying condensed, standardized information on each documentation service, and indexes by publishing country, subject, references added per year, etc.) are in microfiche form and are contained in a pocket on the back cover of the original document. Technical considerations preclude making these appendices available from EDRS. (Author/UM)

AUG 26 1971

PROPOSAL 1

D R A F T

SURVEY OF THE WORLD AGRICULTURAL DOCUMENTATION SERVICES

Prepared on behalf of
**THE EUROPEAN COMMISSION OF EXPERTS ON
AGRICULTURE**

(International Information System
for the Agricultural Sciences and Technology)

H. BOUTIER

**CENTRE FOR INFORMATION AND DOCUMENTATION (CID),
EUROPEAN COMMISSION, LUXEMBOURG**

ED055627

LEGAL NOTICE

This document was prepared under the sponsorship of the Commission of the European Communities.

Neither the Commission of the European Communities, its contractors nor any person acting on their behalf:

make any warranty or representation, express or implied, with respect to the accuracy, completeness or usefulness of the information contained in this document, or the views or any information, apparatus, method or process disclosed in this document may not infringe patent rights.

accept any liability with respect to the use of, or for damages resulting from the use of any information, apparatus, method or process disclosed in this document.

This report is available at the address listed on cover page 4

1. ORDERING INFORMATION	2. PRICE	3. ORDERING ADDRESS	4. ORDERING METHOD
-------------------------	----------	---------------------	--------------------

For more information, contact the EEC number and the title of the report, or the Commission of the European Communities.

E0055627

D R A F T

**SURVEY OF THE WORLD AGRICULTURAL
DOCUMENTATION SERVICES**

Prepared on behalf of
**THE FAO PANEL OF EXPERTS ON
AGRIS**

(International Information System
for the Agricultural Sciences and Technology)

by

H BUNTROCK

**CENTRE FOR INFORMATION AND DOCUMENTATION (CID),
EUROPEAN COMMUNITIES LUXEMBOURG**

EDITORIAL COMMITTEE

**P. ARIES
P. BOYLE
H. COBLANS
U. SCHUETZACK**

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

December 1970



**Food and Agriculture Organization of the United Nations
Organisation des Nations Unies pour l'Alimentation et l'Agriculture
Organización de las Naciones Unidas para la Agricultura y la Alimentación**

DOCUMENTATION CENTRE - CENTRE DE DOCUMENTATION - CENTRO DE DOCUMENTACION

ABSTRACT

In 1970 the Centre for Information and Documentation (C.I.D.) of the European Communities and the I.A.D. Working Group on agricultural documentation services carried out a worldwide inquiry on agricultural documentation services. 2000 services with 1.5 million references a year have been analysed of which there were 1200 bibliographies with 600 000 titles a year and 800 abstract services with 500 000 abstracts a year. The abstracted abstract journals and bibliographies are published in 50 countries and in 22 languages. 20 services are computerized. The biggest producer countries are the U.S.A., U.K., U.S.S.R., France and Germany. English is, with more than 20 %, the most used abstracting language. German follows with 12 %, Russian and French with 11 % each. Some apparent gaps and strong points in agricultural documentation can be indicated by means of the statistical distribution of references per subject.

AGRICULTURE
DOCUMENTATION SYSTEMS

The Food and Agriculture Organization of the United Nations has established a Panel of Experts to study the desirability and feasibility of setting up, under the aegis of FAO, an International Information System for the Agricultural Sciences and Technology (AGRIS). Preliminary studies were carried out in 1970 by an ad hoc study group composed of experts from several information services and documentation centres. This study group considered that an essential element on which to base the detailed study for AGRIS would be as exhaustive as possible a survey of existing information services and documentation centres in agriculture and related fields. The present report contains the preliminary results of this survey, which has been carried out through cooperation of the members of the study group under the coordination of the Centre for Information and Documentation (CID) of the European Communities. FAO wishes to record its appreciation for the collaboration received from all study group members and most particularly for the considerable assistance given by the European Communities for the coordination of the survey, the analysis and processing of the data and the preparation of the report itself.

G. DUBOIS
Head of the Documentation Centre
FAO, Rome

C O N T E N T S

	<u>Page</u>
Acknowledgements	1
Summary of the principal statistical results	2
1 Introduction	3
1.1 History and scope of the Survey	3
1.2 Subject scope and classification	7
1.3 Selection of services	8
2 Methods	8
2.1 The questionnaire	8
2.2 The Main List	8
2.3 Statistical analysis	9
2.4 Indexes	10
3 Discussion of the results	10
3./1.1 Publishing countries	10
3./1.2 Sponsors / Owners	11
3./1.3 Staffing	11
3./1.4 Related library	12
3./2 Input	12
3./2.1 Source material	12
3./2.2 Serial publications regularly scanned	12
3./2.3.1 Coverage by subject	13
(a) Subject fields apparently relatively poorly cov.	14
(b) Subject fields apparently well covered	15
(c) Comparison with FRAUENDORFER'S	
Survey of Abstracting Services	16
(d) Concurrent subject fields	16
(e) Number of references a year	16
3./2.3.2 Coverage by country or region, and	
3./2.3.3 Coverage by language	17
3./3 Processing	17
3./3.1 Time lag between publication of primary literature	
and secondary references	17
3./3.2 Data handling	17
3./4 Output	18
3./4.1 Output data	18
3./4.2 Language of abstracts and titles	19
3./4.3 Classification used within the services	19
3./4.4 Indexes	19
3./4.4.1 Subject indexes. Thesauri	19
3./4.4.2 Geographical indexes	20
3./4.4.3 Author indexes	20
3./4.5 Carrier media for output	20
3./4.6 Services providing ancillary information outputs	21
3./5 Interface arrangements	21

TABLES

Table 1	Publishing countries :	22
Table 2	Services and references/year	23
Table 3	Publishing country: subject	26
Table 4	Subject: publishing country	30
Table 5	Subject: Services and references/year	33
Table 6	Subject field associations	34
Table 7	References/year	35
	National services limited by country	35

		<u>Page</u>
Table 8	Language of primary literature (services which confine coverage to one language)	36
Table 9	Mechanised services	37
Table 10	Computerised services	37
Table 11	Output data	37
Table 12	Subject: language of abstracts and/or titles	38
Table 13	Language of abstracts: Publishing country	41
Table 14	Language of titles: Publishing country	42
Table 15	Subject Index	43
Table 16	Services with controlled vocabularies: subject	43
Table 17	Author index: subject	44
Table 18	Geographical index: subject	44
Table 19	Output form	45
Table 20	Information services: subject	45

LITERATURE

46

APPENDICES

Appendix 1	Questionnaire	47
	Questionnaire layout	52
Appendix 2	Classification scheme	56
Appendix 3	Country Codes	59
Appendix 4*)	Codes of Languages	59
Appendix 5)	Main list	
Appendix 6	Index No. 1: Publishing country	
Appendix 7	Index No. 2: Subject	
Appendix 8	Index No. 3: References per annum	
Appendix 9	Index No. 4: National services limited by country	
Appendix 10	Index No. 5: Language of primary literature	
Appendix 11	Index No. 6: Mechanised services	
Appendix 12	Index No. 7: Computerised services	
Appendix 13	Index No. 8: Language of abstracts and titles	
Appendix 14	Index No. 9: Controlled vocabularies	
Appendix 15	Index No. 10: Output form (punched cards, punched tapes, magnetic tapes)	
Appendix 16	Index No. 11: Information services	
Appendix 17	KWIC Index	

*) Appendices 5 - 17 on microfiches

ACKNOWLEDGEMENTS

The following persons collaborated in the Survey:

- Ph. ARIES Institut Français de la Recherche Fruitières Outre-Mer
(IFAC), Paris.
- P. BOYLE Commonwealth Bureau of Pastures and Field Crops, Hurley,
Berks, UK.
- H. COBLANS Formerly of ASLIB, London.
- G. DUBOIS FAO, Rome.
- G. KOSTER Centrum voor Landbouwpublikatie en Landbouwdocumentatie
(PUDOC), Wageningen, Netherlands.
- A. LEBOWITZ and Mrs C. JOHNSON
National Agricultural Library, Beltsville, Maryland, USA.
- J. PEACHEY Organization for Scientific and Technical Information,
London (Formerly Commonwealth Bureau of Helminthology,
St. Albans, Herts, UK).
- U. SCHUETZSACK and M. RAUTH
Institut für Dokumentationswesen, Frankfurt/M.,
Germany. (Also with the collaboration of P. HARSANYI,
Bad Godesberg, Germany.)

Thanks are due to all the above-named persons, especially to Mr. P. BOYLE, who kindly revised the text of the report, as well as to many others for their willing help which has enabled this Survey to be completed within the specified time.

Summary of the principal statistical results of the Survey

The following figures are based on data collected in nearly all instances for the year 1969.

A total of 514 secondary agricultural documentation services with a total output of 1,5 million references¹⁾ were analyzed.

Of these:

- 150 (29%) issue titles²⁾ only, with a total output of 640,000 titles per year
- 378 (74%) issue titles plus abstracts³⁾, with a total output of 855,000 abstracts per year
- 237 (46%), with a total output of 1,026,000 references per year, have subject indexes
- 248 (48%), with a total output of 1,010,000 references per year, have author indexes
- 450 (88%), with a total output of 1,290,500 references, produce serially published output
- 31 services are mechanized, with machine-readable tape available from 18 services with a total output of 203,000 references per year
- 66 services (13%), with a total output of 225,500 references per year, offer a retrieval service

The 10 largest title services issue a total of 360,000 titles per year (24%)

The 10 largest abstract services issue a total of 227,000 abstracts (19%) per year

There are 100 card services issuing a total of 348,000 references per year

The services analyzed are published in 50 countries in 22 languages.

FOOTNOTES

- 1) "References" denotes bibliographic citations, with or without accompanying abstracts or other forms of enrichment.
- 2) "Titles" denotes bibliographic citations containing the minimum amount of information required to identify the primary documents of origin. In some instances there may be limited enrichment in the form of added keywords or other brief annotations.
- 3) "Abstracts" denotes informative or indicative statements of the contents of the primary documents of origin.

2. Introduction

2.1 History and scope of the Survey

A recent survey of the secondary information services in agriculture and related subjects by Sigmond von FRAUENDOERFER, the results of which were published in 1969 (4), provides striking evidence of the large number and remarkably diverse nature of the services which exist in this subject area. The Survey lists nearly 700 services, a situation in marked contrast to that which exists in other branches of science and technology such as physics, chemistry, medicine and atomic science, in which a relatively small number of large, highly mechanized services covering wide subject domains have developed.

In agriculture, some services have a relatively wide subject coverage, while others deal only with very narrow, specialized subject areas. A few services are run as straight commercial ventures, others function on a non-profit basis as services to members of commercial or quasi-commercial associations and organizations. The majority, however, are government sponsored and financed. Some services exist to meet the information needs of a particular country, but draw on primary and secondary material from all sources, while other services cover only the primary literature produced by a single country or group of countries. In many instances, two or more services cover the same subject area. The scene is a confused one, and among such a multiplicity of services it may be doubted that all are able to operate as efficiently as they would wish.

A noteworthy phenomenon of the last two decades or so on has been the remarkable rise in the volume of primary documents to be processed by information services, and for which the term "information explosion" has been coined. This problem is common to information services in all disciplines, but bears particularly heavily on those which aim to provide a comprehensive coverage of large subject areas. One effect of this in the agricultured field has been to increase markedly the cost of operating such services; it has also accentuated the duplication of effort arising from the large number of subject areas which are shared by more than one service. Information services have also tended to become concentrated in the most technologically advanced countries, a trend which renders them less freely available to workers in developing countries by reason of their high cost.

Most of the major information services, including a number in the field of agriculture, now use or are preparing to use mechanized methods of information handling based on computers. Such methods are costly to operate, but it is only by their adoption that the very large services have been able to deal with their very large throughputs of secondary information and at the same time provide the variety of output forms required by present-day science and technology.

These methods have so far found their principal application as internal operational aids to the rapid handling of material within services. However, they also carry other potential benefits, chief among which is the opportunity they provide for the rapid transfer and exchange of information files between services through the medium of machine-readable tapes or discs. These enable information files to be transferred from one service into the data base of another and can also be used for the direct generation of various forms of printed output locally. Furthermore, by appropriate programming of the material they carry, obstacles to information transfer arising from differences in procedural and processing practice among services can be overcome.

These new media for the bulk transfer of information thus provide the necessary basis for the sharing of machine-readable material among information centres and for any attempt to rationalize the multiplicity of world agricultural information services and so improve the flow of secondary information generally.

It was with these considerations in mind that an ad hoc meeting was convened in October 1969 in Rome under the auspices of FAO to review the current world situation in the secondary information services in agriculture and related subjects, and to assess what international scope there was for integrating and rationalizing the various services and for improving their value and availability to users generally.

At this meeting, which was attended by representatives from FAO, OECD, The National Agricultural Library (NAL), Beltsville, The Commonwealth Agricultural Bureaux (CAB), and the European Communities (EEC), it was agreed that a Study Group of Experts should be set up with the following assignments:

1. To evaluate the existing agricultural information services
2. To propose possible frameworks for an improved world-wide agricultural information service.

The Study Group was given until June 1970 to complete its enquiries, the results of which were then to be used as a basis in formulating recommendations to be made to FAO. At its first meeting in February 1970, agreement was reached as to the main descriptive and statistical information to be sought for each service and a questionnaire was drawn up. Because of the limitations of time, it was not considered possible to secure the requisite information by sending these questionnaires direct to the service or information centres concerned. Instead, this task was delegated to the various members of the Study Group (named in the acknowledgements), each of which was responsible for collating information on the services within a defined geographical region.

It was also made known to the Study Group that the Center for Information and Documentation (CID) in Luxembourg had already begun a survey of documentation centres as part of an investigation begun in May 1969 by the Sub-group Agriculture of the Scientific - Technical Information Group (IDST) of the EEC with the aim of investigating the potential for improved collaboration in agricultural documentation among EEC countries.

With the consent of the EEC Group, it was agreed to combine the two surveys and to examine all the world information services for which information could be found. In this way, the Study Group was able to avail itself of the data processing facilities of the CID, a matter of considerable importance in view of the large amount of data to be analyzed and the limited time available for completion.

The principal source document used for identifying candidate services was Frauendorfer's Survey of Abstracting Services (4), supplemented by other sources such as the FID List of Abstracting Services (7) and the personal knowledge of the members of the Study Group. The Frauendorfer Survey contains a remarkably comprehensive list of services and was of the greatest assistance to the Study Group, both for the solid information it furnished and for the saving in time it made possible.

An important objective of the survey was to obtain general information on the degree of completeness with which the various subject divisions in agriculture were covered by the different services. The task of drawing up a valid subject classification scheme for a subject as many-faceted as agriculture is difficult and, here again, the Study Group was able to avail itself of the classification scheme drawn up by FRAUENDORFER (5), which it adopted with only minor changes.

The chief aim of this Survey has been to provide the Study Group with enough supporting data to enable it to arrive at realistic conclusions as to the current world situation in agricultural documentation, as part of its major assignment to propose possible frameworks for an international agricultural information system.

The Questionnaire used (see appendix 1) has therefore been designed with this objective in mind and has endeavoured to collect as much factual data, supplemented by appropriate descriptive matter, as possible from a direct examination of the various services within the limits of the time available.

In some respects, the Survey is inevitable less than fully comprehensive, in that it has had to omit details of a number of services which were identified but for which it was not possible to obtain information within the time allotted. Also, it bears evidence of differences in emphasis in recording and collating data unavoidable among a group of individuals working within the framework of a questionnaire perhaps oversimplified in some respects. In some instances it may also convey a less than accurate impression of the relative importance of particular services.

It is to be hoped that the Survey will be found a useful and valid interim presentation of the state of agricultural information services in the world generally. However, it perhaps ought to be emphasized that it provides only quantitative data based on a direct examination of the services concerned. It can therefore provide no qualitative information about services beyond that which can reasonably be deduced from the subject scope, scale and method of operation and the range of services and types of output provided.

It would, for example, have been extremely instructive to have been able to secure definitive data on the actual extent to which the primary agricultural literature is covered by the secondary

information services operating within defined subject areas. Also, on the extent to which different services cover the same bibliographic items in the primary literature. Information of this type is ultimately indispensable to any evaluation of the adequacy of a given service or services and of the extent of duplication of effort among services generally. To obtain it would have required resources of time, staff and technology far beyond those available for the present Survey, but it may be hoped that the importance of these aspects will eventually ensure that they are investigated in the not too distant future.

The present Survey has endeavoured to include within its scope all the more important services actually extant in 1970. The numerical data given refer wherever possible to the year 1969, though in a small number of instances it has been necessary to have recourse to figures for 1968 and (for some recently established services) for 1970 where none for 1969 were available.

It is hoped that this interim report will serve as the starting point for a series of further editions which will both update and amplify its contents and rectify its shortcomings.

1.2 Subject scope and classification

The scope of the survey included all services operating within the general field of agriculture and food science. Such facets as human nutrition and, because of its topical importance, environmental factors, were also included.

Because of its convenience and because it had also been decided to use his Survey of Abstracting Services for the purpose of identifying services, FRAUENDORFER's Classification Scheme for Agricultural Science (5) was used as the basis for the subject classification adopted.

This scheme is ordered in a two-level hierarchy, with main subjects coded alphabetically, followed by a further ordering by sub-aspect, also coded alphabetically, as shown in Appendix 2. The category "Z" denoting basic and auxiliary services in FRAUENDORFER's original classification was omitted as being too wide for present purposes and was therefore reassigned to "Agriculture (wide ranging, not specified)". Similarly, the additional main code letter "W" was used to denote "Environmental factors".

1.3 Selection of services

The following main criteria were used in deciding which services to include:

1. The services must operate within scientific or technological subject aspects. Services dealing with economic, statistical or other ancillary subject areas were also included where their association was primarily with agriculture. Services covering only advisory or extension literature were omitted, though the limits were not always easy to define with this type of service.
2. Generally speaking, only services with an output of 500 or more titles or abstracts, depending on breadth of subject coverage, were included. Services with smaller but highly concentrated outputs dealing with specialized subject areas or those covering literature of the national bibliographic type appertaining to limited geographical areas of languages were also included.

These limitations were necessary in order to eliminate the considerable number of small but wide ranging services which though locally important, are of little international significance.

In collecting information for the questionnaires, the output of the various services itself was consulted whenever possible by the members of the Study Group. When this was not feasible, data were accepted only when available from at least two sources of known reliability.

The publications, which were consulted in the course of the enquiry, are quoted on page 46.

2. METHODS

2.1 The questionnaire (Appendix 1)

The questionnaire was designed on lines as simple as possible in order to avoid ambiguities. As many questions as possible were made answerable in terms either of yes-no question and answer or of straightforward quantitative data.

2.2 The Main List (on microfiche)

The services are each identified by an 8-letter code. This code in

nearly all cases is made up of the first three letters of the first word of the title of the service, followed by the first two letters of the second word and the first letter of the third, followed by the first two letters of the name of the town or city in which the service is located.

Each service can thus be located alphabetically in the Main List. This arrangement also makes it possible to add or delete "evaluation sheets" without altering the coding system or sheet order in the Main List.

On each sheet, the coding for the name of the service is followed by the title of the service in full, the name and address of its related organizational or other centre, the year in which the service began operating, together with additional explanatory details relating to various items in the evaluation sheet.

The sheets follow the same arrangement of fields and field notation as the questionnaire. To locate various items in the sheets, a coordinate system in which the horizontal axis was numbered from 1 to 45 and the vertical axis was lettered A, B, C and D was adopted. Where additional explanatory details are given in the sheets, these are prefixed by their locating coordinates, with the vertical letter coding first, followed either by the horizontal numbering from 1 to 45 (e.g. 22-24) or the field notation (e.g. 2.3.1, 4.4, 4.5, etc.).

Because time and facilities were limited, it was necessary to adopt the evaluation sheet format for presenting the survey data. This has resulted in a report which is physically bulky, but which has the not inconsiderable advantage that the same items of information always appear at the same place on the sheets, thus making it easy to compare services. It is also possible to see at a glance what is known and what is not known about a service.

2.3 Statistical analysis

The more important data on the questionnaires were transferred to punch cards. A computer was then used to order the information on each service according to such facets as publishing country, language of the service, etc. and to provide simple statistical collations of the numerical data, the results of which are summarized in Chapter 3.

2.4 Indexes (on microfiches)

The punch cards prepared for each service were also used to generate a number of indexes in order to provide a key to services according to such attributes as countries in which they are located, language of output, which services are mechanized, which are computerized, which operate retrieval services, etc.

In some instances it was necessary to prepare two or more punch cards for services which issue different forms of output or output in more than one language. In these indexes, the 8-letter service name codes carry a suffix (e.g. 1, 2, 3, etc.) to show where this has been necessary.

The enclosed KWIC-Index (on microfiches) is based on the title of the service, the name of the center and of the town of its location. It serves to identify the services by means of significant words of the above named index base (title etc.), for example the service "Abstracts for the Advancement of Industrial Utilization of Wheat" in Pullmann can be found under abstracts, advancement, industrial utilization, wheat and Pullmann.

3. Discussion of the results

The results presented and discussed in this chapter are set out in the same order of fields as in the questionnaire and the evaluation sheet and are notated accordingly. For some services there is more than one pertinent category (subject area, languages, output form, etc.) and the data have been calculated for each relevant category as though they were completely separate outputs.

3.1.1 Publishing countries

Tables 1 - 3, Index 1

Services from a total of 50 countries were analyzed. The countries with the greatest outputs of references were the USA with 16.5 % and the UK with 16 %. Next came the USSR with 12 % of the output, France with 9.5 % and Czechoslovakia with 7 %.

It should, however, be borne in mind that the figures given for the output from the USA is underestimated because it was not possible to obtain data for certain important services. The figures given for the output from certain eastern European countries are probably also underestimated to some extent.

Table 2 gives details of the subject fields covered by the various services arranged according to the countries in which the services are located, together with the number of services operating in each subject field. Because of the extent of overlap between subject fields, it was not possible to obtain an overall figure for the number of references published per year. As might be expected, the countries with the largest output of references also cover the largest number of subject fields, with 55 for the USA, 52 for the Federal Republic of Germany, 44 for the USSR and 43 for the UK.

Table 3 is the converse of Table 2 and shows the countries in which services are located arranged according to subject fields.

3./1.2 Sponsors / Owners

Of the services surveyed, 74 were commercial or were sponsored by industry or by publishing houses, 32 by universities and 37 by professional organizations. The remaining services were nationally, multinationally or internationally sponsored. These included 17 based on multinational arrangements, the most important of which was the Commonwealth Agricultural Bureau (CAB), and 27 were internationally-based services.

The relationship between sponsorship and geographical location to some extent reflects social and political differences between eastern and western countries. In the former, only government-sponsored services exist, whereas in the latter both government-sponsored and privately-sponsored services may co-exist, the respective proportions of each giving some indication of the extent to which governments have felt is necessary to provide or support such services as a public duty. Although it has not been possible to obtain reliable details of sponsorship arrangements for all services, the overall picture to be gained seems to be a reasonable accurate one.

3./1.3 Staffing

As most of the questionnaires were answered by direct examination of the output of the services analyzed and this only rarely contains details of staffing, in only a small number of instances was it possible to secure reliable information on this point. Also, other problems arise from the fact that some services issue more than one type of output or perform tasks other than documentation.

For these reasons, data on this part of the survey were very incomplete and no conclusions could be drawn.

3.1.4 Related Library

The existence of a related library is clearly an important adjunct to an information service, and its effectiveness as an information centre and its ability to provide such back-up services as copies of original documents may be greatly influenced by the size and scope of its related library facilities. The statistics given in this part of the questionnaire are therefore of significance.

The largest libraries named in the questionnaire were :

- Tsentral'naya Nauchnaya Sel'skokhozyaistvennaya Biblioteka (VASKHNIL), Moscow, 3 million volumes
- National Agricultural Library (NAL), Washington, 1.5 million volumes + 23,000 periodicals
- Vstav Vedeckotechnickych Informaci CSAZ (UVTI), Prague, 780,000 volumes
- FAO Library, Rome
- Central Library of the Agricultural University, Wageningen, Netherlands, 400,000 volumes + 10,000 periodicals
- National Lending Library for Science and Technology (NLL), Boston Spa, Yorkshire, UK. >25,000 periodicals

3.2 Input

3.2.1 Source material

The input for most services is obtained directly from the primary literature, but perhaps a quarter of them derive their input from both primary and secondary material. Six services derived their input exclusively from titles or abstracts prepared by other services. It was not possible to obtain answers to this item in the questionnaire for all services, and the number of services in the latter category may therefore in reality be higher than indicated in the Survey.

Nearly all services used printed material as their input. Only 5 were found which used machine-readable material provided by other services.

3.2.2 Serial publications regularly scanned

Figures for individual services can be checked in the Main List

and provide some indication of how completely a subject field is covered.

3.2.3.1 Coverage by subject

Table 4, Index 2

For services which cover more than one subject field, the figure given in the questionnaires for the number of references was in most cases an overall one and was not divided up according to the number of references in each field. Only for those services which cover a single subject field was an exact figure given.

In arriving at the data in Table 4, where no exact figures were available the overall figures for the number of references from services covering more than one subject field were divided by the number of fields. This procedure is admittedly arbitrary and may, for example, in some instances have resulted in overestimation of the number of references in some of the smaller subject fields. Nevertheless, the figures in Table 4 do provide a reasonable accurate indication of the orders of magnitude concerned.

The figures given for subject category Z (Agriculture, wide ranging, non-specific) represent the output from services which in many cases cover a very wide subject range and which it was not possible to subdivide further. The figures given in Table 4 should therefore be increased by approximately 30 % to take account of the additional output from these sources. In the same way, it will be seen that in Table 4 figures for output are given opposite the main subject field headings (e.g. F = Plant protection in general, G = Special field crops, K = Forestry, etc.). These figures represent output from services which cover all or nearly all the subject fields concerned and which have not been divided up among the subheadings within the fields.

As might be expected, both the number of references/year published and the number of services operating within the various subject fields shows a marked variation. This reflects both the amount of primary literature published and the degree of importance attached to the subject field in question.

In the absence of data on the amount of primary literature published within the various FRAUENDORFER subjects fields, it has not been possible to arrive at definitive conclusions as to the extent to which particular fields are covered by secondary services.

(a) Subject fields apparently relatively poorly covered

- A 1-5 Bibliographies, documentation; Library services; Reference books; Periodical literature; Publications issued by institutions and societies.

This group of fields can be regarded as covering to some extent the documentation of agriculture. As such, these fields have not generally been considered to be important enough in their own right to be worth special coverage. Most of the agricultural documentation services are likely to be dealt with by services which specifically cover library and information services, such as Library Science Abstracts, etc. Some of the services analyzed in the Main List, such as the IAALD Quarterly Bulletin and PUDOC do, however, publish references relevant to this subject area.

- A 9 Agriculture of cold climates; High mountain farming.
This field is not apparently covered as a specific subject area, though relevant references will certainly have been assigned to other fields such as F,G,K,M, etc.

- B 2 Geography of agriculture.
The 1300 references/year attributed to this field seem unexpectedly low in view of its evident importance.

- C 2 Extension and advisory work.
The number of references within this field relates to the literature about extension and advisory work, not to the extension literature itself.

- D Agricultural administration and legislation.
The number of references in this field is very low in relation to the primary literature. However, much of this literature is in the form of reports, working papers and other non-serial publications and is therefore not dealt with in the ordinary way by secondary documentation services.

- E7-8 Agricultural prices and statistics.
The survey was concerned only with literature documentation and no account was taken of processing systems or data banks of statistical information. However, even in services which deal with this field, the coverage appears to be relatively thin.

- E4-5 Farm labour; Agricultural cooperation.

- F 1 Agricultural meteorology and climatology. This field is one of

increasing importance but is apparently not well served by secondary services, though an appreciable number of references have probably been included among those attributed to other fields. The agricultural literature is also covered by services which deal specifically with meteorology and climatology in general.

M2-3 Judging and testing; Rearing and housing.

Some of the secondary literature on housing is to be found under P1 (Farm buildings).

M 1 Equidae.

The gap in this field may be a reflection of the decreasing role of horses as work animals, but it may be wondered if the literature on such other aspects as the recreational use of horses, etc. ought not to be better served by secondary services than is apparently the case.

V Environmental factors.

This new and growing field is a complex one and embodies within its scope many disciplines. The primary literature is increasing and secondary services are likely to follow the trend. The documentation services identified in the survey probably do not represent all that exists. Also, an appreciable number of references relevant to this field are widely scattered throughout the other fields surveyed.

(b) Subject fields apparently well covered

P 2 and 4 Soil science, soil conditions in general; Plant nutrition and fertilization.

P 7 and 8 Plant injuries, phytopathology; Plant protection.

Both these fields are characterized by marked industrial and commercial interest.

M 7 Veterinary medicine.

This field is very strongly represented.

R Technology of agricultural products.

The total number of references in all the various subfields within this major field is high and probably reflects its considerable importance to industry and commerce.

(c) Comparison of the results of this survey with those reported in FRAUENDORFER's Survey of Abstracting Services

In the FRAUENDORFER Survey (4), subject fields which were not considered to be well covered by secondary services are enumerated on p. 22 as "agricultural legislation, agricultural geography, statistical sources, agricultural education and extension, agricultural history, reclamation and land improvement, rural building and housing, game and hunting, floriculture and probably some others".

The results of the present survey fully confirm FRAUENDORFER's conclusions regarding the first four fields. However, the situation in the fields of agricultural history, land development, rural buildings and housing, and game and hunting appears to be better than FRAUENDORFER's conclusions would indicate.

(d) Concurrent subject fields

Many services cover more than one subject field and in classifying them by field, it is apparent that many in fact deal with groups of closely related fields. The frequency with which pairs of subject fields are covered by different services is an index of the degree of association between those subjects. Data showing the degree of association between pairs of subject fields are given in concurrent matrix form in Table 5. Pairs showing particularly close association are Soil science and Plant nutrition (F2/F4) and Phytopathology and Plant protection (F7/F8). These fields can be regarded as natural subject units.

(e) Number of references a year

Table 6, Index 3./ Table 6 shows cumulative totals and percentages for the number of references issued by the various services arranged in order of decreasing output, starting with the service having the highest output. The diagram enables a rapid overall impression to be gained of the distribution of output among services according to size. By means of Table 6 it is possible to determine the cumulative total output of references for any number of services, individually for the first 20 largest services, then by groups, depending on size. It will be seen that the 20 largest services issued 590,000 references/year, nearly 40 % of the total of about 1,5 million for all services.

It would seem logical to conclude that because of the overlap in subject fields among services, the total output of references issued in 1969 must contain an appreciable proportion of duplicated references. In 1969, the Bibliography of Agriculture published by the National Agricultural Library, Washington, contained 80,000 references which, according to its own research (2), represented a coverage of 50-60 % of the relevant primary literature in many fields.

On the basis of these figures, the total output of primary literature would therefore be covered uniquely by an output of approximately 200,000 references/year. If this is a valid figure, it would imply that the total output of about 1.5 million references issued by the services surveyed embodies a duplication rate of 7-7.5, i.e. each primary document appears on average 7-7.5 times as a reference in the secondary literature. The total output from abstracting services is 855,000 abstracts/year, representing a lower apparent average duplication rate of about 4, which is closer to the figure of about 3 determined for the secondary services in the field of nuclear science.

3./ 2.3.2 Coverage by country or region, and

3./ 2.3.3 Coverage by language

Tables 7 and 8. Indexes 4 and 5

These categories include only those services (e.g. national bibliographies) which cover exclusively or nearly exclusively the literature of a particular geographical or linguistic area. Where the coverage of such services is comprehensive or nearly so, they may be of special importance for schemes involving international cooperation.

3./ 3 Processing

3./ 3.1 Time lag between publication of primary literature and issue of corresponding secondary references.

Because of lack of time and of accuracy in the answers obtained, no valid conclusions on this point could be drawn.

3./ 3.2 Data handling

Tables 9 and 10. Indexes 6 and 7

As has already been stated, the number of agricultural documentation services using mechanized methods of information processing

is not very high. Nevertheless, mechanized services (i.e. those using only punch cards or paper tape) issue 11 % of the total number of references. Those that use electronic data processing techniques issue 20 % of the total, with the USA contributing 51 % of this figure and the UK 20 %. The present rapid adoption of computer techniques in agricultural documentation is, however, likely to transform this picture in the near future.

3.4 Output

3.4.1 Output data

Table 11

From Table 11 it can be seen that of the services surveyed, 29 % issue bibliographic citations only and publish 43 % of the total number of references issued by all services. 74 % of services issue abstracts and publish 57 % of the total output of references. The average number of references published by services which issue bibliographic citations only is considerable higher than the average number of abstracts published by services that issue abstracts only. This is largely due to the existence among services that issue bibliographic citations of very large services such as the Bibliography of Agriculture, Washington, and the USSR National Bibliography, Moscow. Many of the services which issue bibliographic citations only are wide ranging, while abstract services tend often to cover much narrower subject fields.

In the questionnaire, many services were described as issuing both informative and indicative abstracts and it was not possible to give respective figures for the two categories. The whole abstract output from these services was therefore classed as informative and the figures given in Table 11 and the Main List for numbers of indicative abstracts are correspondingly underestimated. Qualitative differences between indicative and informative abstracts are often more apparent than real and, in practice, it is often difficult and not infrequently impossible to distinguish unambiguously between the two. It has been suggested that the number of words in an abstract offers a criterion, but this is open to a number of objections.

The distinction between the two categories of abstract is nevertheless important, particularly from the point of view of workers using the abstract output from a service for conducting retrospective

literature searches and for whom informative abstracts may be of much greater value than indicative ones. However, in the present survey, only the total figures for informative + indicative abstracts have any genuine validity.

3.4.2 Language of abstracts and titles

Tables 12 - 14, Index 8

Tables 12 - 14 present in simplified form data on the carrier languages used in the output of the services surveyed. Where more than one language is used, no exact indication has been possible and only the main language is indicated.

The services surveyed provided output in 22 languages in all. The language distribution within subject fields is given in Table 12, and the distribution by publishing country in Tables 13 and 14.

The highest proportion of the output (36.2 %) was published in English, followed by 12.2 % in German, 11.2 % in Russian and 11 % in French. 13 % of services issuing bibliographic titles only (especially national bibliography services) published their output in the original language. This figure is, however, an underestimate in that only the original language was recorded in the questionnaire when it was exclusively or almost exclusively used.

3.4.3 Classification used within service

348 services used their own, mostly hierarchical subject arrangement, 192 used the Universal Decimal Classification (UDC), 96 used an established subject heading or descriptor arrangement, 24 arranged material alphabetically by author or name of primary document, and 6 services used a geographical arrangement.

A number of services used two or more systems and were recorded as many times as this was pertinent.

3.4.4 Indexes

3.4.4.1 Subject indexes. Thesauri

Tables 15 and 16, Index 9

Subject indexes were provided by only 46 % of the services analyzed, representing 68 % of the total output of references. The proportion of large services producing indexes was higher than that of the smaller services, hence the difference between the above percentages. 111 services issued conventional alphabetical indexes (SC), 13 issued

KWC (SK) and 8 KWOC (SO) indexes, though there is reason to suppose that the figures for KWIC and KWOC indexes may be too low. A further 103 services issued indexes, but their type was not specified.

Table 15 shows the distribution of indexes by subject, which closely parallels that for the distribution of services by subject.

Indexing depth (average number of keywords per reference) ranged from 1 to 22. An analysis of 59 services showed an average indexing depth of 0,5 keywords per 100 references, a value which varied between 0,007 and 4,0.

31 services with an output of 148,000 references/year were recorded as employing a controlled vocabulary. These services appeared to be relatively small ones operating within specialized subject fields. Their distribution by subject field is shown in Table 16.

3./4.4.2 Geographical indexes

21 services issued geographical indexes. Their distribution by subject field is given in Table 18, which shows a marked concentration of those services in field A8 (Tropical agriculture).

3./4.4.3 Author indexes

Table 17

48 % of services, representing 68 % of the output of references, issued author indexes. These figures were almost the same as those for subject indexes. Distribution by subject field is shown in Table 17.

3./ 4.5 Carrier media for output

Table 19, Index 10

The proportions and quantities of output and number of services providing output in the various carrier media (serial publications, card services, punched tapes, etc.) are shown in Table 19. Nearly 90 % of services provide output in the form of serial publications. The proportion of services which issue cards is unexpectedly high at 20 %. Of particular interest to any proposals for international collaboration are those services which issue machine-readable output, especially magnetic tapes. 14 % of the total output was said to be available in machine-readable form and the proportion can be expected to increase rapidly in the future.

3.4.6 Services providing ancillary information outputs

Table 20, Index 11

Of particular interest to users of information services are those which carry out retrospective searches on request. This facility is offered by 23 services issuing bibliographic citations only and by 43 services issuing abstracts, with a combined total of 225,000 references/year (15 % of the total). Only a small number of the publications examined in the survey notified the fact that a retrieval service was also available and the percentage of services offering this facility may thus be higher in reality.

3.5 Interface arrangements

This field is concerned primarily with mechanized services and with details of any arrangements providing compatibility or standardization between services and which thus enable information files to be exchanged or merged. Because of the limited development of mechanized services in agriculture, relatively little information was obtained in this field. Such information, however, is likely to assume considerable importance in any international collaborative arrangements.

PUBLISHING COUNTRIES:
SERVICES AND REFERENCES / YEAR

TABLE 1

PUBLISHING COUNTRY	TITLE SERVICES	TITLES PER ANNUM	ABSTRACT SERVICES	ABSTRACTS PER ANNUM	T O T A L			
					SERVICES	REFERENCES PER ANNUM	%	%
AL Australia	1	2.500	1	1.300	2	3.800		
AT Argentina	2	1.000			2	1.000		
AU Austria	2	2.200	5	8.920	7	11.120		
BA Bulgaria			7	27.000	7	27.000	1,8	
BG Belgium	1	750	2	1.800	3	2.550		
BL Brazil	3	15.000			3	15.000		
BV Bolivia	1	1.700			1	1.700		
CB Colombia	1				1			
CD Canada	2		3	590	5	590		
CH Switzerland	1	350	3	1.740	4	2.090		
CI China			1	1.000	1	1.000		
CO Congo	2				1			
CS Czechoslovakia	5	16.900	10	87.150	15 3	104.050	7	
DB Germany BRD	24	81.750	49	62.660	73 14	144.410	9,5	
DD Germany DDR	2	3.700	18	59.650	20 4	63.350	4	
DK Denmark			2	400	2	400		
EI Eire			1	200	1	200		
FR France	13	93.050	17	56.600	30 6	149.650	10	
GB United Kingdom	9	59.350	46	178.860	54 10	238.210	16	
GH Ghana	1				1			
HY Hungary	2	11.300	4	43.200	6	54.500	3,5	
IC Ivory Coast	1				1			
ID India			4	4.500	4	4.500		
II International	10	19.050	17	48.670	27 5	67.720	4,5	
IR Israel	4	120	2	500	6	620		
IS Indonesia	2		1	150	3	150		
IT Italy	2	480	5	3,520	7	4.000		
JP Japan	8	22.100	7	2.970	15 3	25.070	1,5	
KR Korea	1		1		2			
MA Mali			1		1			
MO Morocco	2	10.000	1	500	2	10.500		
NL Netherlands	4	11.600	5	27.600	9 1,5	39.200	2,5	
NW Norway			1	2.100	1	2.100		
PI Philippines			1		1			
PK Pakistan			1	350	1	350		
PL Poland	1	2.500	10	19.250	11 2	21.750	1,5	
PT Portugal			1		1			
PU Peru			1		1			
RM Rumania	6	12.700	15	41.700	21 4	54.400	3,5	
SA South Africa	2		1	3.000	3	3.000		
SP Spain			4	4.600	4	4,600		
SU Soviet Union	3	103.800	70	73.450	73 14	177.250	12	
SW Sweden			1	1.200	1	1.200		
TD Thailand	1				1			
TK Turkey			1	80	1	80		
TS Tunisia			1		1			
UA UAR (Egypt)	3				3			
US USA	21	163.650	54	81.325	75 14,5	244.975	16,5	
UY Uruguay	1	200			1	200		
VE Venezuela	4	2.700	1	450	5	3.150		
YU Yugoslavia	1	2.300	5	7.100	6	9.400		

TABLE 2

PUBLISHING COUNTRY : SUBJECT

PUBLISHING COUNTRY	SUBJECT	TITLE SERVICES	ABSTRACT SERVICES	PUBLISHING COUNTRY	SUBJECT	TITLE SERVICES	ABSTRACT SERVICES	PUBLISHING COUNTRY	SUBJECT	TITLE SERVICES	ABSTRACT SERVICES
AL Australia	Z	1	1	DB Germany BRD	K6		1	DD Germany DDR	S2		1
AT Argentina	Z	1	1		SO		3		T		1
AU Austria	Z		1		S1	1	3		T5		1
	D		1		Z	8	3		U		1
	E	1			A7	1	1		U3		
	H1		1		B		1		U8		2
	H4	1			B1		1		W	1	3
	K5		1		B2	1			Z	2	
	R		1		C		1		E		1
	R3		1		E		2		E2		1
	R4	1			E1	1	1		E3		1
	T		1		E2	1	1		F		1
	U		1		E3		2		F4		1
BA Bulgaria	Z		1		E4		1		F7		2
	F		1		E5	1			G		1
	K2		1		F1		1		G3		1
	K5		2		F2		2		H		1
	M		1		F3		1		H2		1
	M7		1		F4		2		H5		1
	R		1		F5		1		K		
	SO		1		F6		1		M		1
BG Belgium	Z		2		F7	1	1		M4		1
	G5		1		F8	1	1		M7		2
	R2		1		G3		1		N		1
BL Brazil	Z	2			G5		2		N2		1
	T	1			H		2		N4		1
BV Bolivia	Z	1			H2		1		N8		1
CB Colombia	Z	1			H3		1		Q		1
CD Canada	Z	1	1		H4		2		R		1
	E	1			H6		1		S1		
	F8		1		K	1	3		S2		1
	K7		1		K4	1			T		1
CH Switzerland	A8	1			K7	1			U		1
	M7	1	1		M		1	DK Denmark	Z		2
	P2		1		M5		1		F2		1
	U3		1		M7		1	EI Eire	F3		1
	W		1		N		1				
CI China	Z		1		N8		1	FR France	Z	3	2
CO Congo	Z	1			P1	1			A7		1
	M				P2		3		A8	2	1
CS Czechoslovakia	Z	3	5		Q	2	1		B		1
	E2	1			R1	1	2		E1	1	
	K	1	3		R2		1		E2	1	1
	K5		1		R3	1	3		F2		1
					R6	1			F7	1	
					R7	1	1		F8	1	
					SO	1			G8	1	2
					S1		1		H		1

PUBLISHING COUNTRY	SUBJECT	TITLE SERVICES	ABSTRACT SERVICES	PUBLISHING COUNTRY	SUBJECT	TITLE SERVICES	ABSTRACT SERVICES	PUBLISHING COUNTRY	SUBJECT	TITLE SERVICES	ABSTRACT SERVICES
GB United Kingdom	H1		1	HY Hungary	Z	1	3	KR Korea	M7		1
	K1	1			B1	1			N8		1
	K3	1			R		1		P	1	
	K5		1	IC Ivory Coast	Z	1			Q	1	
	M7	3							T		1
	Q		1	ID India	Z		1		Z	1	1
	R		1		P2		1		A7		1
	R6	1			R		1		MO Morocco	Z	1
	R7	1	1		S2		1		NL Netherlands	Z	2
	R9	1	1		T		1		A1		1
	U		1		U		1		B1	1	
	U3		1						D1	1	
	W	1		II Inter-national	Z	4	1		E3		1
	Z		5		A7		2		E6	1	
	A6		1		D1	1			F7		1
	A7	3	6		E	1			F8		1
	A8	2			E2	3			N6		1
	B2		1		E5	1			Q		1
	C		1		E6		1	PL Poland	Z		3
	D		1		F2		2		A7		1
	D4		1		F7	1			E		1
	E		1		F8	1	1		F6		2
	E2	2			G1	1			G3		1
	F		3		G2	1			K	1	
	F1		1		G8	1			P		1
	F2		1		H1	1			P2		1
	F4		2		H4		1		Q		2
	F5		1		N2		1	PT Portugal	S1	1	
	F6		2		P1		1		A7		
	F7		4		Q	1	1		F2		
	F8	1	6		R		3				
	G		1		R3		1	PU Peru	Z		1
	G3		1		R7		1	RM Rumania	Z	2	1
	G5		2		S2		3		E	1	
	G6		1		S3		2		E2		1
	G8	1	1		T		2		F		1
	H		1		T4		2		F2	1	1
	K		1		U		1		F4	1	1
	M		3		U3		1		F7		1
	M1	1	1						F8		2
	M6		3	IR Israel	Z	1	1		G		1
	M7	1	6		F4	1			H		2
	N		1		P2	1	1		K	1	
	N4	1	1		R	1			K2		1
	N8		1		U	1			K5		1
	P1		1						M	1	1
	R		1	IS Indonesia	Z	2	1		M7		2
	R1		1	IT Italy	Z		1		P2		1
	R2		3		A8				Q		2
	R3		1		F7	1			R4		1
	R9		1		Q	1	1		S0	1	
	S3		1		R		1				
	T		1		R7		1	SA South Africa	Z	1	1
	T4		1		U		1		P2	1	
	U		3	JP Japan	Z	5	3				
	W		2		A6		1	SP Spain	Z		1
GH Ghana	F8	1			A7	1			F		1
	G8	1			K		1		P		1
					K5	1			Q		1

PUBLISHING COUNTRY	SUBJECT	TITLE SERVICES	ABSTRACT SERVICES	PUBLISHING COUNTRY	SUBJECT	TITLE SERVICES	ABSTRACT SERVICES	PUBLISHING COUNTRY	SUBJECT	TITLE SERVICES	ABSTRACT SERVICES
SU Soviet Union	R		1		B1		1		F		1
	R5		1		C		1		G		1
	Z	3	2		C2		1		K		1
	A1		1		D4		1		M		1
	A7		4		E	1			M7		1
	A8		1		E1		2		N		1
	B2		2		E2		1		R		1
	E2		2		E3		1				
	F		1		F1		1				
	F2		4		F2		5				
	F4		3		F4		3				
	F5		1		F5	1					
	F6		1		F7	1	2				
	F8		2		F8	1	1				
	G		2		G		2				
	G1		2		G1		3				
	G2		2		G2		1				
	G3		6		G3		1				
	G4		1		G5	1					
	G5		1		G6		1				
	G6		4		G8		1				
	G7		2		H	1					
	G8		1		H1		1				
	H		1		H2		3				
	H1		1		H3		1				
	H2		1		K	1					
	H3		1		K1	1	1				
	H4		1		K2	1					
	K		3		K8	1					
	K2		1		M		1				
	M		4		M4		1				
	M4		1		M7		3				
	M7		5		N6		1				
	N2		2		N7	1	1				
	N3		1		N9		1				
	N4		1		P	1					
	N5		2		P2	1	2				
	N6		2		Q	1					
	N7		2		R	1	1				
	N8		2		R3		1				
	P2		7		R7		1				
	Q		3		R8		1				
	Q2		1		R9	1	2				
	S0		2		S0		1				
	S1		2		S2		1				
	W		1		S3	1	1				
SW Sweden	W		1		T2		1				
TD Thailand	Z	1			U	1	1				
TK Turkey	Z		1		U2		3				
TS Tunisia			1		U5	1	1				
UA UAR Egypt)	Z	3			U8		1				
US USA	Z	6	3	UY Uruguay	M	1					
	A7	5	4	VE Venezuela	Z	3					
					T	1	1				
				YU Yugoslavia	Z	1					

TABLE 3

SUBJECT : PUBLISHING COUNTRY

SUBJECT	PUBLISHING COUNTRY	TITLE SERVICES	ABSTRACT SERVICES	SUBJECT	PUBLISHING COUNTRY	TITLE SERVICES	ABSTRACT SERVICES	SUBJECT	PUBLISHING COUNTRY	TITLE SERVICES	ABSTRACT SERVICES
Z Agriculture (wide ranging)				A1 Documentation				C2 Extension. Advisory work			
				SU			1	US			1
AL	1	1		A6 Agric. research				D Agric. administration +			
AT	2		1	GB		1		legislation			
BA			1	JP		1		AU		1	
BG	1		1					GB		1	
BL	2			A7 Basic sciences							
BV	1			DB	1	1		D1 Internat. Organisation			
CB	1			FR		1		II	1		
CD	1	1		GB	3	5		NL	1		
CI		1		II		2					
CO	1			JP	1			D4 Agric. legislation			
CS	3		5	MA		1		GB		2	
DB	8		3	PL		1		US		1	
DD	2			PT							
DK			2	SU		4		E Sociol. + econ. aspects			
FR	3		3	US	5	4		AU	1		
GB			5					CD	1		
HY	1		3	A8 Tropical agric.				DB		2	
IC	1			CH	1			DD		1	
ID		1		FR	2	2		GB		1	
II	4	1		GB	2			II	1		
IR	1	1		IT		1		PL		1	
IS	2	1		NL		2		RM	1		
IT		1		SU		1		US	1		
JP	5	2									
KR	1	1		B History + Geography				E1 Rural sociology			
MO	1	1		DB		1		DB	1	1	
NL	2	1		FR		1		FR	1		
NW		1						US		2	
PI		1		B1 History of agric.							
PK		1		DB		1		E2 Agric. economics			
PL	?	2		HY	1			CS	1		
PU		1		NL	1			DB	1	1	
RM	2	1		US		1		DD		1	
SA		2						FR	1	1	
SP		1		B2 Geography of agric.				GB	2		
SU	3	1		DB	1			II	2		
TD	1			GB		1		RM		1	
TK		1		SU		2		SU		2	
UA	3							US		1	
US	6		3	C Agric. education							
VE	3			DB		2		E3 Farm organisation			
YU	1			GB		1		DB		2	
				US		1		DD		1	
								NL		1	
								US		1	

SUBJECT	PUBLISHING COUNTRY	TITLE SERVICES	ABSTRACT SERVICES	SUBJECT	PUBLISHING COUNTRY	TITLE SERVICES	ABSTRACT SERVICES	SUBJECT	PUBLISHING COUNTRY	TITLE SERVICES	ABSTRACT SERVICES
E4 Farm labour											
DB			1	GB			1	DD			1
				SU			1	GB			1
E5 Agric. cooperation				US	1			PL			1
DB		1						SU			6
II		1		F6 Plant breeding				US			1
E6 Marketing				DB			1	G4 Root crops			
II			1	GB			2	SU			1
NL		1		PL			2				
F Plant production				SU			1	G5 Sugar plants			
BA			1	F7 Physopathology				BG			1
DD			1	DB	1		1	DB	?		1
GB			3	DD			2	GB			2
RM			1	FR	1			SU			1
SP			1	GB			4	US	1		
SU			1	II	2			G6 Textile plants			
YU			1	NL			1	GB			1
F1 Agric. meteorology + climatology				RM			1	SU			4
DB			1	US	1		2	US			1
GB			1	F8 Plant protection				G7 Oil crops			
US			1	CD			1	SU			2
F2 Soil science				DB	1		1				
DB			2	FR	1			G8 Other industr. crops			
EI			1	GB	1		6	FR	1		2
FR			1	GH	1			GB	1		1
GB			1	II	1		1	GH	1		
II			2	NL			1	II	2		
PT				RM			2	SU			1
RM	1		1	SU			2	US			1
SU			4	US	1		1				
TS			1	G Special field crops				H Horticulture			
US			5	DD			1	DB			2
F3 Soil cultivation				GB			1	DD			1
DB			1	RM			1	FR			1
EI			1	SU			2	GB			1
F4 Plant nutrition				US			2	RM			2
DB			2	YU			1	SU			1
DD			1	G1 Cereals				US	1		
GB			2	II	1			H1 Fruit			
IR	1			SU			2	AU			1
RM	1		1	US			3	FR			1
RU			3	G2 Alimentary legumes				II	1		
US			3	II	1			SU			1
F5 Plant cultivation				SU			2	US			1
DB			1	US			1	H2 Vegetable culture			
				G3 Forage crops				DB			1
				DB			1	DD			1
								SU			1
								US			3

SUBJECT	PUBLISHING COUNTRY	TITLE SERVICES	ABSTRACT SERVICES	SUBJECT	PUBLISHING COUNTRY	TITLE SERVICES	ABSTRACT SERVICES	SUBJECT	PUBLISHING COUNTRY	TITLE SERVICES	ABSTRACT SERVICES
H3 Field vegetables				K7 Forest management				N2 Larger ruminants			
DB		1		CD		2		DD		1	
SU		1		DB	1			II		1	
US		1						SU		2	
H4 Viticulture				K8 Forest economics				N3 Smaller ruminants			
DB		2		US		1		SU		1	
II		1		M Animal husbandry				N4 Swine			
SU		1		BA		1		DD		1	
H5 Ornamental gardening				CO				GB	1	1	
DD		1		DB		1		SU		1	
H6 Landscape gardening				DD		1		N5 Other mammals			
DB		1		GB		3		SU		2	
K Forestry				RM	1	1		N6 Poultry			
CS	1	3		SU		4		NL		1	
DB	1	3		US		1		SJ		2	
DD				UY	1			US		1	
GB		1		YU	1			N7 Fish culture			
JP		1		M1 Animal breeding				SU		2	
PL	1			GB	1	1		US	1	1	
RM	1			M4 Feeding				N8 Insects			
SU		3		DD		1		DB		1	
US	1			SU		1		DD		1	
YU		1		US		1		GB		1	
K1 Natural environment				M5 Utilization				JP		1	
FR	1			DB		1		SU		2	
US	1	1		M6 Hygiene				N9 Other animals			
K2 Silviculture				GB		4		US		1	
BA		1		M7 Veterinary medicine				P Rural build. Land developm.			
RM		1		BA		1		JP	1		
SU		1		CH		1		PL		1	
K3 Forest protection				DB		1		SP		1	
FR	1			DD		2		US	1		
K4 Forest engineering				FR	3			P1 Farm buildings			
DB	1			GB	6	1		DB	1		
K5 Forest products				JP		1		GB		1	
AU		1		RM		2		II		1	
BA		2		SU		5		P2 Land development			
CS		1		US		3		CH		1	
FR		1		YU		1		DB		3	
JP	1			N Particular domestic animals				ID		1	
RM		1		DB		1		IR	1	1	
US	1			DD		1		PL		1	
K6 By-products				GB		1		RM		1	
CS		1		YU		1					

SUBJECT	PUBLISHING COUNTRY	TITLE SERVICES	ABSTRACT SERVICES	SUBJECT	PUBLISHING COUNTRY	TITLE SERVICES	ABSTRACT SERVICES	SUBJECT	PUBLISHING COUNTRY	TITLE SERVICES	ABSTRACT SERVICES
	SA	1		R5 Oils and fats					ID		1
	SU		7	SP		1			II		2
	TS		1						JP		1
	US		3	R6 Meat and fish industry					US		1
Q Agric. Machinery				DB		1			VE	1	
	FR		1	FR		1					
	DB	2	1	R7 Dairy industry					T2 Vitamin research		
	DD		1						US		1
	FR		1								
	II		1						T4 Dietary diseases		
	IT		1						GB		1
	JP	1							II		1
	NL		1								
	PL		2						T5 Food policy and economy		
	RM		2	R8 Textile industry					DB		1
	SP		1	US			1				
	SU		3						U Food stuffs in general		
	US	1		R9 Other industries					AU		1
R Technology of agric. products				FR		1	1		DB		1
	AU		1	GB			1		DD		1
	BA		1	US		1	2		FR		1
	DD		1						GB		3
	FR		1	SO Preservation of nature					ID		1
	GB		1	BA			1		II		1
	HY		1	CS			3		IR	1	
	ID		1	DB		1			US	1	1
	II		3	RM		1					
	IR	1		SU			2				
	IT		1	US			1		U2 Processing		
	SP		1						US		3
	US	1	1	S1 Hunting							
	YU		1	CS		1	3		U3 Preserving		
R1 Milling. Baking				DB			1		CH		1
DB	1		1	DD					DB		
GB			2	ID					FR		1
				PL		1			II		2
R2 Starch and sugar industry				SU			2		IT		1
DB			1								
GB			3	S2 Fresh water fishing					U5 Storage and transport		
				DB			1		US	1	1
				DD			1				
				ID			1				
				II			2		U8 Cookery. Domestic economy		
				US			1		DB		2
R3 Fermentation industr.									US		1
AU			1	S3 Sea fisheries							
DB	1		3	GB			1				
GB			1	II			2		W Environmental factors		
II			1	US		1	1		CH		1
US			1						DB	1	3
				T Human nutrition					FR	1	
R4 Technology of fruit + veget.				AU			1		GB		2
AU			1	BL		1			SW		1
RM			1	DB			1		SU		1
				DD			1		US		3
				GB			1				

TABLE 4

SUBJECT : SERVICES AND REFERENCES / YEAR

Remark: It must be emphasized that the values given in the table are only estimated averages and have no more than indicative value. The figures given for subject category "Z" (agriculture, wide-ranging, not specified) represent the output from services which in many cases, cover a wide subject range which it has not been possible to subdivide further. The figures given below should therefore be increased by approximately 30 % to take account of the additional output from these sources.

SUBJECT	TITLE SERVICES	TITLES PER ANNUM (ESTIMATION)	ABSTRACT SERVICES	ABSTRACTS PER ANNUM (ESTIMATION)	TOTAL		PERCENTAGE OF TOTAL MINUS "Z"
					SERVICES	REFERENCES PER ANNUM	
Z Agriculture (wide ranging)	64	422.920	54	245.500	118	668.420	-
A1 Documentation			1	300	1	300	0,04
A6 Agric. research			3	1.295	3	1.295	0,16
A7 Basic sciences	10	30.475	19	27.150	29	57.625	7,00
A8 Tropical agric.	5	11.775	6	7.895	11	19.670	2,38
B History + Geography	1	200	2	185	3	385	0,05
B1 History of agric.	2	5.300	2	875	4	6.175	0,75
B2 Geography of agric.	1		3	1.300	4	1.300	0,16
C Agric. education			4	2.400	4	2.400	0,29
C2 Extension. Advisory work			1	150	1	150	0,02
D Agric. administration + legislation			2	1.370	2	1.370	0,17
D1 Internat. Organisation	2	1.125			2	1.125	0,14
D4 Agric. legislation			3	1.800	3	1.800	0,22
E Sociol.+econ. aspects	5	13.300 *	5	7.500	10	20.800	2,52
E1 Rural sociology	2	800	3	1.625	5	2.425	0,29
E2 Agric. economics	7	2.600	8	6.110	15	8.710	1,05
E3 Farm organisation			5	2.650	5	2.650	0,32
E4 Farm labour			1	350	1	350	0,04
E5 Agric. cooperation	2	650			2	650	0,08
E6 Marketing	1	1.000	1	1.000	2	2.000	0,24
F Plant production			10	24.950	10	24.950	3,02
F1 Agric. meteorology + climatology			3	1.950	3	1.950	0,24
F2 Soil science	1	800	18	13.575	19	14.375	1,72
F3 Soil cultivation			2	700	2	700	0,08
F4 Plant nutrition	2	800	12	8.875	14	9.675	1,17
F5 Plant cultivation	1		3	15.250	4	15.250	1,85
F6 Plant breeding			6	15.350	6	15.350	1,86
F7 Physopathology	5	31.930	11	15.580	16	47.510	5,75
F8 Plant protection	6	30.725	15	20.250	21	50.975	6,17
G Special field crops			8	6.550	8	6.550	0,79
G1 Cereals	1		5	8.550	6	8.550	1,03
G2 Alimentary legumes	1		3	530	4	530	0,06
G3 Forage crops			11	7.125	11	7.125	0,86
G4 Root crops			1	250	1	250	0,03
G5 Sugar plants	1	200	5	3.425	6	3.625	0,44
G6 Textile plants			6	920	6	920	0,11

SUBJECT	TITLE SERVICES	TITLES PER ANNUM (ESTIMATION)	ABSTRACT SERVICES	ABSTRACTS PER ANNUM (ESTIMATION)	TOTAL		PERCENTAGE OF TOTAL MINUS "Z"
					SERVICES	REFERENCES PER ANNUM	
G7 Oil crops			2	270	2	270	0,03
G8 Other industr.crops	1	825	5	4.800	6	5.625	0,68
H Horticulture	1		8	13.550	9	13.550	1,64
H1 Fruit	2	300	4	480	6	780	0,09
H2 Vegetable culture			6	2.000	6	2.000	0,24
H3 Field vegetables			3	750	3	750	0,09
H4 Viticulture	1	300	4	1.250	5	1.550	0,19
H5 Ornamental gardening			1	850	1	850	0,10
H6 Landscape gardening			1	300	1	300	0,04
K Forestry	5	10.700	12	25.955	17	36.655	4,43
K1 Natural environment	2	40	1		3	40	
K2 Silviculture			3	3.200	3	3.200	0,39
K3 Forest protection	1				1		
K4 Forest engineering	1				1		
K5 Forest products	2	1.000	6	13.750	8	14.750	1,78
K6 By-products			1	2.250	1	2.250	0,27
K7 Forest management	1		2	300	3	300	0,04
K8 Forest economics	1		1		2		
M Animal husbandry	2	1.700	13	28.675	15	30.375	3,68
M1 Animal breeding	1	8.000	1	2.500	2	10.500	1,27
M4 Feeding			3	850	3	850	0,03
M5 Utilization			1	600	1	600	0,07
M6 Hygiene			4	8.750	4	8.750	1,06
M7 Veterinary medicine	5	23.850	24	39.850	29	63.700	7,73
N Particular domestic animals			4	8.575	4	8.575	1,04
N2 Larger ruminants			4	5.000	4	5.000	0,61
N3 Smaller ruminants			1	250	1	250	0,03
N4 Swine	1	2.500	3	2.350	4	4.850	0,59
N5 Other mammals			2	200	2	200	0,02
N6 Poultry			4	7.100	4	7.100	0,86
N7 Fish culture	1	400	3	700	4	1.100	0,13
N8 Insects			6	2.020	6	2.020	0,24
N9 Other animals			1	2.500	1	2.500	0,33
P Rural build. Land development	2	500	2	2.800	4	3.300	0,40
P1 Farm buildings	1	1.200	2	7.100	3	8.300	0,99
P2 Land development	3	40	19	12.720	22	12.760	1,54
Q Agricultural machinery	5	1.000	15	27.400	20	28.400	3,44
Q2 Power machinery			1	600	1	600	0,07
R Technology of agric. products	2	100	14	30.250	16	30.350	3,69
R1 Milling. Baking	1	1.700	3	4.800	4	6.500	0,79
R2 Starch and sugar industry			4	3.275	4	3.275	0,40
R3 Fermentation industr.	2	4.300	7	3.135	9	7.435	0,90
R4 Technology of fruit + vegetables	1	300	2	1.280	3	1.580	0,19
R5 Oils and fats			1	600	1	600	0,07
R6 Meat and fish industry	2	3.500			2	3.500	0,43
R7 Dairy industry	2	3.500	5	3.700	7	7.200	0,87
R8 Textile industry			1	100	1	100	0,01

SUBJECT	TITLE SERVICES	TITLES PER ANNUM (ESTIMATION)	ABSTRACT SERVICES	ABSTRACTS PER ANNUM (ESTIMATION)	TOTAL		PERCENTAGE OF TOTAL MINUS "Z"
					SERVICES	REFERENCES PER ANNUM	
R9 Other industries	2	550	3	28.100	5	28.650	3,48
S0 Preservation of nature	2	825	8	3.905	10	4.730	0,57
S1 Hunting	2	1.900	6	2.700	8	4.600	0,56
S2 Fresh water fishing			7	13.370	7	13.370	1,60
S3 Sea fisheries	1	5.000	4	9.500	5	14.500	1,76
T Human nutrition	2	2.300	10	19.950	12	22.250	2,70
T2 Vitamin research			1	400	1	400	0,05
T4 Dietary diseases			2	190	2	190	0,02
T5 Food policy and economy			1	1.200	1	1.200	0,15
U Food stuffs in general	2	100	10	22.940	12	23.040	2,80
U2 Processing			3	500	3	500	0,06
U3 Preserving			5	3.630	5	3.630	0,44
U5 Storage and transport	1		1	1.000	2	1.000	0,12
U8 Cookery. Domestic economy			3	970	3	970	0,12
W Environmental factors	4	3.865	11	9.955	15	13.820	1,68

*) 6 x 1.800 of the same titles in different languages

TABELLE 5

SUBJECT FIELD ASSOCIATIONS

SUBJECT FIELD	FREQUENCY	SUBJECT FIELD	FREQUENCY	SUBJECT FIELD	FREQUENCY	SUBJECT FIELD	FREQUENCY	SUBJECT FIELD	FREQUENCY	SUBJECT FIELD	FREQUENCY
A6/C	01	E3/E4	01	G /F5	01	H2/H3	02	N /S2	01	S /P2	01
A6/D	01	E3/Q	01	G /G8	01	H2/R8	01	N2/G	01	S /S1	02
A6/F7	01	E4/E3	01	G /H	01	H3/H2	02	N2/R7	01	S /S3	01
A6/K	01	E5/E2	01	G /N2	01	H4/A8	01	N4/N7	02	S /W	02
A7/E1	01	E6/D1	01	G /R2	02	H4/H1	01	N7/N4	02	S1/K	05
A7/E2	03	F /G	02	G /R8	01	H4/R	01	N9/Q	04	S1/R9	01
A7/F1	01	F /G8	01	G1/G2	02	H4/R3	01	P2/A7	01	S1/S	02
A7/F2	02	F /H	02	G1/G8	01	H6/S	01	P2/F	01	S2/A7	01
A7/F5	01	F /M	01	G1/H1	01	H6/W	01	P2/F2	04	S2/E	01
A7/F6	02	F /P2	01	G2/G1	02	K /A6	01	P2/F4	01	S2/M	01
A7/F7	02	F /R	01	G2/G8	01	K /F2	01	P2/G3	01	S2/N	01
A7/M1	01	F /U	01	G2/H2	01	K /P2	02	P2/K	02	S2/P2	01
A7/M6	02	F1/A7	01	G3/M4	02	K /S	04	P2/K1	01	S2/S3	01
A7/P2	01	F1/B2	01	G3/P2	01	K /S1	05	P2/K2	01	S3/S	01
A7/S2	01	F1/G	01	G5/R2	02	K1/F2	01	P2/S	01	S3/S2	01
A7/U5	01	F1/W	01	G6/G7	02	K1/F8	01	P2/S2	01	T /M	01
A8/H1	01	F2/A7	02	G6/G8	01	K1/P2	01	P2/W	01	T /R	02
A8/H4	01	F2/F3	02	G6/H1	01	K1/W	01	P3/W	01	T /R1	01
A8/M7	02	F2/F4	09	G6/H2	01	K2/K5	02	Q /E3	01	T /U	04
A8/U5	01	F2/K	01	G7/G6	02	K2/P2	01	Q /N9	04	T2/U2	01
B /E1	02	F2/K1	01	G7/G8	01	K2/S	01	Q6/U1	01	T4/D4	01
B /E2	01	F2/P2	04	G8/F	01	K3/F8	01	R /F	01	T4/F8	01
B2/F1	01	F2/W	02	G8/F8	02	K3/W	01	R /H1	01	T4/U	01
B2/W	01	F3/F2	02	G8/G	01	K4/K7	01	R /H4	01	U /F	01
C /A6	01	F3/F4	01	G8/G1	01	K5/K2	02	R /T	02	U /M	01
C /D	01	F4/F2	09	G8/G2	01	K5/K6	01	R /U	05	U /R	05
C /E	02	F4/F3	01	G8/G6	01	K5/R9	01	R /U3	02	U /T	04
C /U8	01	F4/G	02	G8/G7	01	K5/S	01	R1/T	01	U /T4	01
D /A6	01	F4/P2	01	G8/H	01	K6/K5	01	R2/G	02	U1/Q6	01
D /C	01	F5/A7	01	G8/H1	01	K7/K4	01	R2/G5	02	U2/F8	01
D /E	02	F5/G	01	G8/R9	03	M /F	01	F3/H	01	U2/T2	01
D1/E2	01	F6/A7	02	H /F	02	M /N	04	R3/H1	01	U3/R	02
D1/E6	01	F6/M1	01	H /G	01	M /S2	01	R3/H4	01	U5/A7	01
D4/M7	01	F7/A6	01	H /G8	01	M /T	01	R4/H	01	U5/A8	01
D4/T4	01	F7/F8	10	H /R3	01	M /U	01	R6/R7	02	U8/C	01
E /C	02	F7/M7	01	H /R4	01	M1/A7	01	R7/M5	01	U8/E	01
E /D	02	F8/F7	10	H1/A8	01	M1/F6	01	R7/N2	01	W /B2	01
E /S2	01	F8/G8	02	H1/G1	01	M4/G3	02	R7/R6	02	W /F1	01
E /U8	01	F8/K1	01	H1/G6	01	M5/R7	01	R8/G	01	W /F2	02
E1/A7	01	F8/K3	01	H1/G8	01	M6/A7	02	R8/H2	01	W /H6	01
E1/B	02	F8/M6	01	H1/H2	01	M6/F8	01	R9/G8	03	W /F8	01
E1/E2	02	F8/T4	01	H1/H4	01	M6/M7	03	R9/K5	01	W /K1	01
E2/A7	03	F8/U2	01	H1/R	01	M7/A8	02	R9/S1	01	W /K3	01
E2/B	01	F8/W	01	H1/R3	01	M7/D4	01	S /H6	01	W /P2	01
E2/D1	01	G /F	02	H2/G2	01	M7/F4	01	S /K	04	W /P3	01
E2/E1	02	G /F1	01	H2/G6	01	M7/M6	03	S /K2	01	W /S	02
E2/E5	01	G /F4	02	H2/H1	01	N /M	04	S /K5	01		

TABLE 6

REFERENCES / YEAR

SERVICES	CUMULATED TOTAL	REFERENCES PER ANNUM	CUMULATED TOTAL	PERCENTAGE OF THE TOTAL
1	1	78.500	78.500	5.25
1	2	66.000	144.500	9,67
1	3	55.000	199.500	13.34
1	4	36.000	235.500	15,75
1	5	30.000	265.500	17,75
1	6	30.000	295.500	19,77
1	7	30.000	325.500	21.78
1	8	30.000	355.500	23,77
1	9	30.000	385.500	25.78
1	10	30.000	415.500	27,78
1	11	28.000	443.500	29,66
1	12	22.250	466,000	31,16
1	13	21.500	487,500	32,60
1	14	20.000	507.500	33,94
1	15	16.300	523.800	35,04
1	16	15.000	538.800	36,04
1	17	15.000	553.800	37,03
1	18	13.000	566.800	37,90
1	19	12.300	579.100	38,73
1	20	12.000	591.100	39,54
3	23	36.000	627.100	41,94
3	26	32.800	659.900	44,14
3	29	30.000	689.900	46,14
3	32	29.300	719.200	48,10
3	35	24.800	744.000	49,74
3	38	24.000	768.000	51,37
3	41	24.000	792.000	52,97
3	44	23.230	815.230	54,53
3	47	22.000	837.230	56,--
3	50	21.000	858.230	57,40
6	56	38.300	896.530	59,96
6	62	35.500	932.030	62,33
6	68	30.500	962.530	64,37
6	74	29.800	992.330	66,37
6	80	27.300	1.019.630	68,20
6	86	25.400	1.045.030	69,90
6	92	24.000	1.069.030	71,50
6	98	22.100	1.091.130	72,97
6	104	21.000	1.112.130	74,38
6	110	20.000	1.132.130	75,73
10	120	30.100	1.162.230	77,73
10	130	26.750	1.188.980	79,52
10	140	24.800	1.213.780	81,18
10	150	22.350	1.236.130	82,67
10	160	20.200	1.256.330	84,02
10	170	18.400	1.274.730	85,25
10	180	18.000	1.292.730	86,46
10	190	16.650	1.309.380	87,58
10	200	15.100	1.324.480	88,59
10	210	14.500	1.338.980	89,56
10	220	12.900	1.351.880	90,41
10	230	12.000	1.363.880	91,23
20	250	22.500	1.386.380	92,73
20	270	19.760	1.406.140	94,04
20	290	16.450	1.422.590	95,14
30	320	21.400	1.443.990	96,57
30	350	16.200	1.460.190	97,66
40	390	16.430	1.476.620	98,76
45	435	11.780	1.488.400	99,54
50	485	6.745	1.495.145	100,--

TABLE 7

NATIONAL SERVICES LIMITED BY COUNTRY

COUNTRY	TITLE SERVICES	TITLES PER ANNUM	ABSTRACT SERVICES	ABSTRACTS PER ANNUM	T O T A L	
					SERVICES	REFERENCES PER ANNUM
AF Africa			1	500	1	500
AL Australia	1	2.500	1	1.300	2	3.800
AR Arab.countr.	1				1	
AT Argentina	1	1.000			1	1.000
BA Bulgaria			1	2.800	1	2.800
BG Belgium	1	750			1	750
BL Brazil	2	4.500			2	4.500
BV Bolivia	1	1.700			1	1.700
CB Colombia	1				1	
CD Canada	2		2	290	4	290
CI China			1	1.000	1	1.000
CO Congo	2				2	
CS Czechoslov.	3	15.700	3	4.700 (1)	6	20.400
DB Germany BRD	4	5.400	4	2.000	8	7.400
DK Germany BDR	1	2.400	2	800	3	3.200
EC Europ. Comm.	2	10.400 (2)	1	1.200	3	11.600
FR France	2	1.400	3	1.320	5	2.720
HY Hungary	1	6.000	1	3.300 (3)	2	9.300
ID India			2	500	2	500
IR Israel	1	120	1		2	120
IS Indonesia	2		1	150	3	150
IT Italy	1	380	1	2.200	2	2.580
JP Japan	1	6.000	3	470	4	6.470
KR Korea			1		1	
LT Latin Amer.	2	3.200	1	100	3	3.300
MO Morocco			1	500	1	500
NL Netherlands	1	2.600			1	2.600
PI Philippines			1		1	
PK Pakistan			1	350	1	350
PL Poland			3	950	3	950
PU Peru			1	60 (4)	1	60
RM Rumania	3	8.100	1	3.000 (5)	4	11.100
SA South Africa	1		1	3.000	2	3.000
SC Scandinavia			2	2.100	2	2.100
SU Soviet Union	3	94.500	4	9.300 (6)	7	103.800
TK Turkey			1	80	1	80
US USA	4	1.350	26	12.975	30	14.325
UY Uruguay	1	200			1	200
VE Venezuela	2	1.300	1	450	3	1.750
YU Yugoslavia	1	2.300			1	2.300

- (1) 4 x 850 in different languages
 (2) 6 x 1.800 " " "
 (3) 3 x 1.100 " " "
 (4) 2 x 30 " " "
 (5) 3 x 1.000 " " "
 (6) 6 x 750 " " "

TABLE 8

LANGUAGE OF PRIMARY LITERATURE
(SERVICES WHICH CONFINE COVERAGE TO ONE LANGUAGE)

COVERED LANGUAGE	TITLE SERVICES	TITLES PER ANNUM	ABSTRACT SERVICES	ABSTRACTS PER ANNUM	T O T A L	
					SERVICES	REFERENCES PER ANNUM
AR Arabian	1				1	
BG Bulgarian			2	2.800	2	2.800 (1)
CH Chinese			1	1.000	1	1.000
CS Czech	3	15.700	2	4.200	5	19.900 (2)
DE German	7	9.050	7	3.450	14	12.500
EN English	12	40.050	40	56.725	52	96.775
ES Spanish	7	4.200	2	500	9	4.700
FR French	2	8.600	4	1.670	6	10.270
HU Hungarian	1	600	1	3.300	2	3.900 (3)
IS Indonesian	2		1	150	3	150
IT Italian	1	380	1	2.200	2	2.580
JA Japanese	1	6.000	3	470	4	6.470
KO Korea			2		2	
PL Polish			3	950	3	950
PT Portugese	2	4.500			2	4.500
RM Rumanian	2	7.100			2	7.100
RU Russian	3	94.500	5	9.300 (4)	8	103.800
SH Serbo-Croat	1	2.300			1	2.300

- (1) 2 x 1.400 published in different languages
 (2) 4 x 850 " " " "
 (3) 3 x 1.100 " " " "
 (4) 6 x 750 " " " "

TABLE 9

MECHANISED SERVICES

PUBLISHING COUNTRY	LANGUAGE OF ABSTRACTS AND/OR TITLES	SERVICES	REFERENCES PER ANNUM
CS Czechoslovakia	CS Czech	6	85.150
	DE German		850
	EN English	1 (*)	850
	FR French		850
	RU Russian		850
DB Germany BRD	DE German	13	29.650
	OR Orig. lang.	1	8.400
FR France	FR French	1	5.000
	OR Orig. lang.	1	1.000
GB United Kingdom	EN English	1	1.300
II International	EN English	3	27.120
TS Tunisia	FR French	1	
		28	161.020

(*) 1 CS -Service is published in 4 languages

TABLE 10

COMPUTERISED SERVICES

BG Belgium	FR French	1	750
CD Canada	EN English	1	
CH Switzerland	DE German	1 (*)	350
	EN English	1	350
DB Germany BRD	DE German	4	6.900
	OR Orig. lang.	1	30.000
DD Germany DDR	DE German	2	15.800
FR France	FR French	2	17.000
GB United Kingdom	EN English	10	60.800
II International	EN English	3	16.000
MO Morocco	FR French	1	500
SA South Africa	EN English	1	
SU Soviet Union	RU Russian	1	800
US USA	EN English	16	155.200
		44	304.450

(*) Service published in DE and EN

TABLE 11

OUTPUT DATA

	SERVICES (*)		REFERENCES/YEAR	
1. titles only (bibliographies)	150	29 %	640.000	43 %
2. abstracts	373	74 %	855.000	57 %
2a) indicative abstracts	82	17 %	251.000	17 %
2b) informative abstracts	286	57 %	601.000	40 %
2c) author's summaries	5		3.000	
3. mini abstracts	20	4 %	40.850	3 %

(*) some services publish partly titles only and partly with abstracts

TABLE 12

SUBJECT : LANGUAGE OF ABSTRACTS AND/OR TITLES

SUBJECT	LANGUAGE OF ABSTR.	ABSTRACT SERVICES	LANGUAGE OF TITLES	TITLE SERVICES	SUBJECT	LANGUAGE OF ABSTR.	ABSTRACT SERVICES	LANGUAGE OF TITLES	TITLE SERVICES	SUBJECT	LANGUAGE OF ABSTR.	ABSTRACT SERVICES	LANGUAGE OF TITLES	TITLE SERVICES
Z Agriculture (wide ranging)					C2 Extension. Advisory work									
CS 4			CS 3		EN 1					RU 1				
DA 2					D Agric. administration + legislation					SH 1				
DE 7			DE 9		DE 1					F1 Agric. meteorology + climatology.				
EN 25			EN 15		EN 1					DE 1				
ES 3			ES 9		D1 Internat. Organisation					EN 2				
FI 1					OR 2					F2 Soil science				
FR 8			FR 7		D4 Agric. legislation					DE 2				
HU 2			IS 2		EN 3					EN 8				
IT 1			JA 4		E Social and economical aspects					FR 3				
JA 2			KO 1		DE 3					PT 1				
KO 1					EN 1					RO 1		RO 1		
NL 1					PL 1					RU 4				
NO 1										F3 Soil cultivation				
OR 1			OR 2							DE 1				
PL 2			PL 1							EN 1				
			PT 2							F4 Plant nutrition				
			RO 1							DE 4				
RU 6			RU 3							EN 5		EN 1		
UK 1					E1 Rural sociology					RO 1		RO 1		
A1 Documentation					DE 1					RU 3				
RU 1					EN 2					F5 Plant cultivation				
A6 Agric. research					FR 1					DE 1				
EN 2					E2 Agric. economics					EN 1		EN 1		
A7 Basic sciences					CS 1					RU 1				
DE 1			DE 1		DE 3					F6 Plant breeding				
EN 13			EN 8		EN 1					DE 1				
FR 2			OR 1		FR 2					EN 2				
PT 1					RO 1					PL 2				
RU 4					RU 2					RU 1				
A8 Tropical agric.										F7 Phytopathology				
EN 2			EN 2							DE 3				
FR 2			FR 1		E3 Farm organisation					EN 7		EN 1		
IT 1			OR 1		DE 3							IT 1		
RU 1					EN 1					OR 1		OR 2		
B History and geography					E4 Farm labour					RO 1				
DE 1					DE 1					F8 Plant protection				
FR 1					E5 Agric. cooperation					DE 1				
B1 History of agric.					DE 1					EN 10		EN 3		
DE 1					E6 Marketing					FR 1		FR 1		
EN 1			EN 1		EN 1					RO 2		OR 1		
			OR 1		OR 1					RU 2				
B2 Geography of agric.					F Plant production					G Special field crops				
EN 1			DE 1		BG 1					DE 1				
RU 2					DE 1					EN 3				
C Agric. education					EN 4					RO 1				
DE 2					ES 1					RU 2				
EN 2					RO 1					SH 1				

SUBJECT	LANGUAGE OF ABSTR.	ABSTRACT SERVICES	LANGUAGE OF TITLES	TITLE SERVICES	SUBJECT	LANGUAGE OF ABSTR.	ABSTRACT SERVICES	LANGUAGE OF TITLES	TITLE SERVICES	SUBJECT	LANGUAGE OF ABSTR.	ABSTRACT SERVICES	LANGUAGE OF TITLES	TITLE SERVICES
Q2 Power machinery					R6 Meat and fish industry					ES	1	ES	1	
RU 1					DE 1					JA	1	PT	1	
R Technology of agric. products					FR 1					OR	1			
BG 1					R7 Dairy industry					T2 Vitamin research				
DE 2					DE 1 DE 1					EN 1				
EN 4 EN 2					EN 2					T4 Dietary diseases				
ES 1					FR 1 FR 1					EN 2				
FR 3					IT 1					T5 Food policy and economy				
HU 1					R8 Textile industry					DE 1				
IT 1					EN 1					U Food stuffs in general				
SH 1					R9 Other industries					DE 3				
R1 Milling. Baking					EN 3 EN 1					EN 6 EN 2				
DE 2 DE 1					FR 1					FR 1				
EN 1					S0 Preservation of nature					U2 Processing				
R2 Starch and sugar industry					BG 1 DE 1					EN 3				
DE 1					CS 3 RO 1					U3 Preserving				
EN 3					EN 1					EN 1				
R3 Fermentation industr.					RU 2					FR 2				
DE 4 DE 1					S1 Hunting					IT 1				
EN 2					CS 3 CS 1					OR 1				
FR 1					DE 1 PL 1					U5 Storage and transport				
R4 Technology of fruit + vegetables					RU 2					EN 1 EN 1				
DE 1					S2 Fresh water fishing					U8 Cookery. Domestic economy				
RO 1					DE 2					DE 2				
R5 Oils and fats					EN 4					EN 1				
ES 1					ES 1					W Environmental factors				
					S3 Sea fisheries					DE 3 DE 1				
					EN 3 EN 1					EN 4 EN 1				
					FR 1					OR 2 FR 1				
					T Human nutrition					RU 1				
					DE 3									
					EN 4									

TABLE 13

LANGUAGE OF ABSTRACTS : PUBLISHING COUNTRY

LANGUAGE OF ABSTRACTS	PUBLISHING COUNTRY	ABSTRACT SERVICES	ABSTRACTS PER ANNUM	LANGUAGE OF ABSTRACTS	PUBLISHING COUNTRY	ABSTRACT SERVICES	ABSTRACTS PER ANNUM
BG Bulgarian				FR	BG	2	1.800
BA	6	<u>24.200</u>		French	CD	1	150
CS Czech					CS	1	850
CS	9	<u>83.750</u>			FR	17	56.600
DA Danish					II	6	7.600
DK	2	<u>400</u>			MA	1	
DE German					MO	1	500
AU	5	8.920			RM	1	1.000
CH	1	350			SU	1	750
CS	1	850			TS	1	
DB	46	62.660				<u>32</u>	<u>69.250</u>
DD	17	59.650		HU Hungarian			
HY	1	1.100		HY	3	<u>39.900</u>	
SU	1	750		IT Italian			
	<u>72</u>	<u>134.280</u>		IT	5	<u>3.520</u>	
EN English				JA Japanese			
AL	1	1.300		JP	3	<u>2.150</u>	
BA	1	1.400		KO Korean			
CD	3	440		KR	1		
CH	1	350		NL Dutch			
CI	1	1.000		NL	2	<u>13.000</u>	
CS	1	850		NO Norwegian			
EI	1	200		NW	1	<u>2.100</u>	
GB	46	178.860		OR Orig. Lang.			
HY	1	1.100		CH	2	1.040	
ID	3	2.000		FR	1	1.000	
II	11	39.570		ID	1	2.500	
IR	1	500		II	1	100	
IS	1	150		IR	1		
JP	3	700		SW	1	1.200	
NL	2	13.000			<u>7</u>	<u>5.840</u>	
PI	1			PL Polish			
PK	1	350		PL	8	<u>18.600</u>	
PL	1	650		PT Portuguese			
PU	1	30		PT	1		
RM	1	1.000		RO Rumanian			
SA	1	3.000		RM	14	<u>38.700</u>	
SU	1	750		RU Russian			
TK	1	80		BA	1	1.400	
US	54	81.325		CS	1	850	
	<u>139</u>	<u>328.605</u>		HY	1	1.100	
ES Spanish				RM	1	1.000	
II	1	800		SU	73	69.700	
PU	1	30			<u>77</u>	<u>74.050</u>	
SP	4	4.600		SH Serbo-croat			
VE	1	450		YU	5	<u>7.100</u>	
	<u>7</u>	<u>5.880</u>		SK Slovak			
FI Finnish				CS	1		
SU	1	<u>750</u>		UK Ukrainian			
				SU	1	<u>750</u>	

TABLE 14

LANGUAGE OF TITLES :
PUBLISHING COUNTRY

LANGUAGE OF TITLES	PUBLISHING COUNTRY	TITLE SERVICES	TITLES PER ANNUM	LANGUAGE OF TITLES	PUBLISHING COUNTRY	TITLE SERVICES	TITLES PER ANNUM
CS Czech	CS	<u>5</u>	<u>16.900</u>	GB		2	950
DE German	AU	2	2.200	IC		1	
	DB	19	40.850	II		2	2.000
	DD	2	3.700	MO		1	10.000
	II	1	1.800	RM		1	2.100
		<u>24</u>	<u>48.550</u>			<u>16</u>	<u>96.000</u>
EN English	AL	1	2.500	HU Hungarian			
	CD	2		HY		1	<u>6.000</u>
	GB	8	28.400	IS Indonesian			
	GH	1		IS		<u>2</u>	
	HY	1	5.300	IT Italian			
	II	3	3.500	IT		<u>3</u>	<u>1.280</u>
	IR	4	120	JA Japanese			
	JP	1		JP		<u>6</u>	<u>16.100</u>
	NL	2	9.600	KO Korean			
	SA	2		KR		<u>1</u>	
	TD	1		NL Dutch			
	UA	1		II		<u>1</u>	<u>1.800</u>
	US	21	163.650	OR Orig. lang.			
		<u>48</u>	<u>213.070</u>	CH		1	350
ES Spanish	AT	2	1.000	DB		3	34.900
	BV	1	1.700	FR		5	12.850
	CB	1		GB		1	30.000
	CO	1		II		2	1.750
	II	6	5.300	NL		2	2.000
	UY	1	200			<u>14</u>	<u>81.850</u>
	VE	4	2.700	PL Polish			
		<u>16</u>	<u>10.900</u>	PL		<u>1</u>	<u>2.500</u>
FR French	BG	1	750	PT Portuguese			
	FR	8	80.200	BL		<u>3</u>	<u>14.500</u>
				RO Rumanian			
				RM		<u>5</u>	<u>10.600</u>
				RU Russian			
				SU		<u>3</u>	<u>103.800</u>
				SH Serbo-corat			
				YU		<u>1</u>	<u>2.300</u>

TABLE 15

SUBJECT INDEX

TYPE	SERVICES	REFERENCES / YEAR
Non specified S	103	376.110
Convent.alphab. SC	111	433.620
KWIC SK	13	148.150
KWOC SO	8	52.000
UDC SU	2	16.800
	237	1.026.680

SUBJECT INDEX : SUBJECT

SUBJECT	TITLE SERVICES	ABSTRACT SERVICES	SUBJECT	TITLE SERVICES	ABSTRACT SERVICES	SUBJECT	TITLE SERVICES	ABSTRACT SERVICES
A6		1	G3		2	Q	2	10
A7	4	15	G5		3	R	1	6
A8	2	3	G6		1	R1		2
B2		2	G8	3	2	R2		3
C		3	H	1	6	R3		3
D		1	H1	1	1	R4		1
D4		3	H2		4	R1	1	
E	1	3	H3		2	R7	1	5
E1	1	2	H4		1	R8		1
E2	3	2	H6		1	R9	1	3
E3		1	K	2	5	SO	1	4
E6		1	K5	1		S1	1	3
F		5	K7		2	S2		5
F1		2	M	1	6	S3		3
F2		9	M1	1	1	T	1	4
F3		1	M5		1	T4		2
F4		7	M6		4	U	1	5
F5	1	2	M7	4	15	U2		1
F6		2	N		2	U3		3
F7	4	7	N2		1	U5		1
F8	2	9	N7	1	1	U8		3
G		4	N8		1	W		5
G1	1	2	P1		1	Z	28	36
G2	1		P2	1	4			

TABLE 16

SERVICES WITH CONTROLLED VOCABULARIES : SUBJECT

Z	4	1	F4		1	P2		2
A7		4	F7	2	1	Q	1	1
A8		3	F8	1	2	R		1
D4		1	H		1	R6	1	
E		1	H1		1	R7	1	
E3		1	H6		1	SO	1	
E4		1	M		2	T		1
F		1	M6		2	U		2
F2		1	M7	1	2	W		1
F3		1	N		1			

TABLE 17

AUTHOR INDEX : SUBJECT

SUBJECT	TITLE SERVICES	ABSTRACT SERVICES	SUBJECT	TITLE SERVICES	ABSTRACT SERVICES	SUBJECT	TITLE SERVICES	ABSTRACT SERVICES
Z	30	32	G		4	N9		1
A6		1	G1	1	2	P	1	1
A7	7	16	G2	1		P2		7
A8	2	5	G3		2	Q	3	8
B		1	G5		4	R	1	4
B1	1	1	G6		1	R1		1
B2		3	G8	1	4	R2		4
C		2	H	1	5	R3	1	4
C2		1	H1	1	2	R4		1
D		2	H2		2	R7		5
D4		3	H3		1	R8		1
E	3	2	H4		2	R9	1	4
E1	1	3	K	3	7	S0		4
E2	3	2	K1	1		S1	1	4
E3		1	K3	1		S2		7
E6		1	K5	1		S3	1	4
F		6	M	1	7	T	1	4
F1		3	M1	1	1	T4		2
F2		10	M5		1	U	1	5
F4		5	M6		4	U2		1
F5	1	2	M7	3	14	U3		4
F6		4	N		2	U5	1	
F7	4	7	N2		1	U8		2
F8	3	8	N8		1	W	1	5

TABLE 18

GEOGRAPHICAL INDEX : SUBJECT

Z	4	3	D	1	K		1
A6		1	E	2	M7	1	
A7	1	1	E6	1	Q		1
A8	2	4	F1	2	R2		1
B1	1		F2	1	S2		3
B2		1	G5	1	S3		2
C		1	H1	1	W		1

TABLE 19

OUTPUT FORM

OUTPUT FORM	SERVICES			REFERENCES /	YEAR
serial public.	450	88	%	1.290.500	87 %
card services	100	20	%	348.000	23 %
computer print-out	5			51.800	3,5 %
microforms	9			62.250	4 %
handsorted punched cards	8			16.400	1 %
punched cards	10			35.350	2,5 %
punched tapes	4			7.150	0,5 %
magnetic tapes	18	3,5	%	203.400	14 %

TABLE 20 INFORMATION SERVICES : SUBJECT

SUBJECT	TITLE SERVICES	ABSTRACT SERVICES	SUBJECT	TITLE SERVICES	ABSTRACT SERVICES
Z	9	7	H4		1
A7	1	5	K	1	2
A8		1	K1	1	
B1		1	K3	1	
B2	1		K4	1	
C		1	K7	1	
D4		1	M		2
E		1	M1	1	
E1		1	M6		1
E3		1	M7		2
E4		1	N		1
E5	1		N8		1
F2	1	1	P1	1	
F3		1	P2		2
F4		2	R	1	1
F5		2	R1	1	2
F6		1	SO		2
F7	2		S1		2
F8	3	1	S2		1
G		1	T5		1
G3		1	U	1	
G5		1	U3		1
G8	1		U8		1
H		1	W	1	2

L I T E R A T U R E

(1) BARLEN, S.

Verzeichnis von Schrifttum - Auskunftsstellen.
Herausgegeben vom Deutschen Normenausschuß und vom
Forschungsinstitut für Rationalisierung an der Rheinisch-
Westfälischen Technischen Hochschule Aachen. Bearbeitet von
Dr. Sigrid Barlen, Forschungsinstitut für Rationalisierung.
6. ergänzte und erweiterte Auflage, 1968
Beuth - Vertrieb GmbH, Berlin 30. Köln. Frankfurt/M.

(2) BOURNE, C.P.

Characteristics of Coverage by the Bibliography of Agriculture
of the Literature relating to Agricultural Research and
Development
Report No. IGC - PA - 69 - 38, Information General Corporation
(IGC). 999 Commercial Street, Palo Alto, California 94303, USA

(3) EURATOM, European Atomic Energy Community,
Center for Information and Documentation - CID
Documentation Centers in Border-Line Fields to Nuclear
Science and Technology, 1967

(4) FRAUENDORFER, S. von (Editor)

Survey of Abstracting Services and Current Bibliographical
Tools in Agriculture, Forestry, Fisheries, Nutrition,
Veterinary Medicine and Related Subjects
BLV Verlagsgesellschaft München. Basel. Wien : 1969

(5) FRAUENDORFER, S. von

Système de classification des sciences agricoles.
Classification Scheme of Agricultural Science.
Stoffeinteilung der Landwirtschaftswissenschaft.
Third revised and enlarged edition
BLV Verlagsgesellschaft München. Bonn. Wien : 1960

(6) HORN, H.G.

Die Dokumentation in der Landbauwissenschaft
Berichte und Arbeiten aus der Universitätsbibliothek
Gießen (11). Gießen. Universitätsbibliothek 1967

(7) International Federation for Documentation (FID)

Abstracting Services,
Voll Science and Technology, Vol. 2 Social Sciences. Humanities
Hofweg 7, The Hague, Netherlands,
FID publ. 456, December 1969

(8) Jahrbuch der Bibliotheken, Archive und Informations-
stellen der DDR. 1966/67

(9) KOSTER, G.

Bronnenmateriaal op het gebied van de landbouw en
aanverwante gebieden. Herziene en uitgebreide bewerking
van Lijst van Referaat Tijdschriften e.d. op het gebied
van de landbouw, Wageningen 1961, Literatuuroverzicht nr. 31
Centrum voor Landbouwpublikaties en Landbouwdocumentatie -
PUDOC, Wageningen 1967

Study Group
reporting to the Chairman
of the FAO Panel of Experts

"Evaluation of existing agricultural information services"
(as for 1969 in principle)

1.1 Name and full address of the service:

Since:

1.2 Sponsors/Owners:

- national ☐ regional ☐ inter-governmental ☐ international ☐
 (e.g. provincial)
- governmental (public) ☐ commercial (private ☐
- others :

1.3 Staffing

if possible specify number

	Internal	External
- subject specialists		
- linguists		
- system specialists (system analysts, programmers)		
- auxiliaries		

1.4 Related Library

- name: _____
- stock:

 volumes

 serial publications
reports other publications
- catalogues: alphabetical ☐ systematic ☐

2. INPUT

2.1 Source and form

- Does the service provide its own input material ?

yes ☐ no ☐ partly ☐

- does it get the materials from primary journals ☐ secondary services ☐

- Form if input: printed word ☐ machine-readable material ☐

2.2 Number of serial publications regularly scanned:

2.3 Coverage

2.3.1 by subject:

average number of references
per annum

wide ranging (Z)

☐

code

specialized

2.3.2 by country or region (geographical origin of published material):

2.3.3. by language (source language or language of documents analyzed):

in order of frequency,
e.g. EN > FR > DE,
of occurrence of language:

 > >

3. PROCESSING

3.1 Time-lag (between primary and secondary publication): ☐ ☐ months

3.2 Data handling methods

- manual ☐ mechanised ☐ computerised ☐
(pater tapes,
punched cards etc..)

- if computerised:

automatic text processing (for printing) ☐

automatic data processing (data arrangements by computer
for other purposes, sort, listing, retrieval, etc...) ☐

4. OUTPUT

4.1 Data

- reference numbers only (i.e. as retrieval output) ☐

- bibliographical references only ☐

original titles only ☐ translated titles only ☐ both ☐

- bibliographical references plus:
(tick the pertinent column)

	<u>always</u>	<u>sometimes</u>
address of author	<input type="checkbox"/>	<input type="checkbox"/>
Mini abstract (sets of keywords added to bibliograph. references)	<input type="checkbox"/>	<input type="checkbox"/>
author's summary	<input type="checkbox"/>	<input type="checkbox"/>
indicative abstract	<input type="checkbox"/>	<input type="checkbox"/>
informative abstract	<input type="checkbox"/>	<input type="checkbox"/>

4.2 Language(s) of abstracts: language(s) of titles:

4.3 Classification used within the service

(i.e. UDC, FRAUENDORFER etc..; if an internal system is used, a copy of
the scheme would be appreciated): ...

4.4 Indexes

4.4.1 Subject index ☐

- depth (average number of index terms
per item) ☐

- thesaurus (if used, a copy would be
appreciated) ☐

- structure and process

conventional alpha-
betical index ☐

KWIC ☐

KWOC ☐

others:

- sign posting (cross and relational references)

SEE references ☐

SEE ALSO references ☐

4.4.2 Geographical index ☐

4.4.3 Author index ☐

4.4.4. Cumulative indexes ☐

Specify periodicity:

4.5 Output form

- serial publication (e.g. Journal) ☐

title :

- card service ☐

- computer print-out ☐

- microfiches ☐

- punched cards ☐

- punched tapes ☐

- magnetic tapes ☐

- others

4.6 Periodicity of service

- regular ☐

irregular ☐

on request ☐
(i.e. retrieval)

if regular, number of issues per year
(i.e. 004 = quaterly, 012 = monthly, 052 = weekly)